



**Reptile Survey
for a proposed reptile receptor site at
Penrallt Ddu
Pen-y-Bryn
Pembrokeshire.**

Client: Obsidian Developments

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EXECUTIVE SUMMARY

1. A reptile survey was undertaken by Wyndrush Wild on land at Penrallt Ddu, Pen-y-Bryn during spring 2023. The aim of the survey was to establish the presence or likely absence of reptiles across the site following Natural England approved guidelines (Froglife, 1999).
2. There were no previous records of reptiles from the site.
3. Five survey visits were undertaken, all in suitable weather conditions. During each survey visit, all twelve pre-laid artificial cover objects were examined for reptiles. In addition, a transect route was walked between these to examine other potentially suitable habitat areas for the presence of basking reptiles.
4. No reptiles were recorded during the surveys.

1. Background to the study

The area was identified as a possible suitable receptor site for populations of slow worms and barred grass snakes from a proposed development site on land adjoining Awel-y-Mor, St Dogmaels.

The reptile surveys were undertaken by Matt Sutton between 21st April and 7th May 2023, on days with suitable weather conditions for finding reptiles (Froglife 1999).

Protected and BAP species, such as barred grass snakes, common lizards and slow worms, are a material consideration under the National Planning Policy Framework (NPPF, 2012). All reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981.



View of potential translocation site (taken May 25th after surveys completed).

2. Site Description

The site is situated on a farm in Pen y Bryn. It is part of a south facing field currently not in use. It was identified as a potential site which was unlikely to have its own existing population of slow worms and whereby habitat improvements could be made to make it suitable as a receptor site for a population of slow worms to be translocated to.

A plan of the proposed site is shown below. The majority of the site is improved or poor semi-improved grassland with a few old muck piles. It was topped in February 2023. There is a newly planted hedge on the west side and mature hedges to the north and east. The site is bordered by arable fields to the north and west, mature woodland to the east and farm buildings to the south/south-west.



Location of potential translocation site surveyed.

3. Aims and objectives

The aims and objectives of this survey were to:

- identify the presence of any reptile species using the site, and more specifically the presence of a current slow worm population to assess whether this is a suitable receptor site.

To undertake the reptile survey, artificial cover objects (ACOs) were used. These increase the chances of observing otherwise elusive reptiles, which are attracted to these 'refuges' as they can bask on top or regulate their body temperature below the refuges, out of sight from predators.

Twelve ACOs made from corrugated metal sheets, each measuring either around 1m², were laid on 24th March 2023. These were left to 'bed-in' for four weeks, as recommended in survey guidelines (Froglife, 1999).

The ACOs were laid in areas with potential suitability for reptiles. The map in Appendix A shows these locations.

A small number of existing potential refuges (muck heaps and scrap metal) were also identified on the site. These refuges were also surveyed on each visit to the site.

On each visit, ACOs were approached slowly and observed from a distance to observe any reptiles basking in the sun. Each sheet was then approached cautiously and turned over to survey for reptile species using the refuge to warm up or shelter underneath.

A transect route was also walked slowly, to cover the areas of open ground and potential basking spots between the ACOs.

4. Results

Desk Exercise

NBN Atlas has records of slow worm from the Cardigan area, and they have been recorded at the Welsh Wildlife Centre, Cilgerran. Residents at Penrallt-ddu have spotted slow worms a couple of times close to residential buildings about 400 meters away from the survey site.

Survey Results

Records from the five survey visits are summarised in Table 1.

No reptiles were found under any of the ACOs.

No reptiles were found under natural refuges, and none were seen on transects between refuges.

Table 1: Summary of results for reptile species

Visit	Date	Weather	Adder	Grass Snake	Common Lizard	Slow Worm
1	21.4.23	11°C 20% cloud Beaufort 1				
2	28.4.23	14°C 40% cloud Beaufort 2				
3	2.5.23	15°C 0% cloud Beaufort 1				
4	5.5.23	14°C 10% cloud Beaufort 0				
5	7.5.23	16°C 30% cloud Beaufort 2				

Reptile Population Assessment

Froglife (1999) provides means of evaluating reptile populations based on survey results using a density of 10 refuges per hectare. The density of refuges used during this survey (12 in approximately 500m² of suitable habitat) was well in excess of the order suggested. “Low”, “good” or “exceptional” populations are based on numbers of adult reptiles recorded by one surveyor in one visit. As no reptiles were recorded, it is assumed that there is no population here.

5. Discussion and Recommendations

No reptiles were recorded during the survey.

April and May are optimal survey months for reptiles. Survey visits were all carried out in suitable weather conditions, at times of day judged conducive to reptile recording (generally 9.30 – 10.30am and the recommended density of refugia (10 per 1ha of suitable habitat at the site) was exceeded. Therefore, the survey results are considered to provide an accurate account of the status of reptiles on the site.

As the results from the survey show a low population of slow worms it can be considered as a suitable receptor site. Some habitat enhancement would be required to create more suitable

conditions for the reptiles to thrive. Botanical and invertebrate diversity could be increased through avoidance of fertilisers and herbicides. Structural diversity could be increased by mowing paths or patches on rotations of varying length – paths could be maintained through frequent mowing; some areas could be maintained by mowing on an annual basis, ideally in late autumn, whilst other areas could be allowed to become taller by mowing on a two-year cycle. Arisings from the mowing could be used to form a compost heap against the boundary hedge. Log and/or piles of stone or slate could be built to provide hibernacula and basking opportunities. Small numbers of fruit trees or bushes could be accommodated, but the site should remain unshaded. The establishment of a Section 106 Agreement is recommended to ensure the land is continuously managed in a suitable way to support the population of slow worms.

Following habitat enhancement works, the reptiles from St Dogmaels should ideally be translocated during spring, to avoid stress to pregnant females. The translocated populations should be subject to annual monitoring for an initial 2-3 year period, to ensure that the population is established and self-sustaining.

6. Summary and Conclusions

The site was identified as a potential receptor site for reptiles from St Dogmaels, provided that there was not a significant established population of slow worms. This survey has demonstrated that there are currently no or few reptiles on site. Subject to some habitat improvement it would make a suitable receptor site for the existing population of slow worms to be translocated to. A Section 106 Management Agreement will be required to ensure that the site is maintained in a suitable condition, and monitoring of translocated reptile populations will be required.

7. References

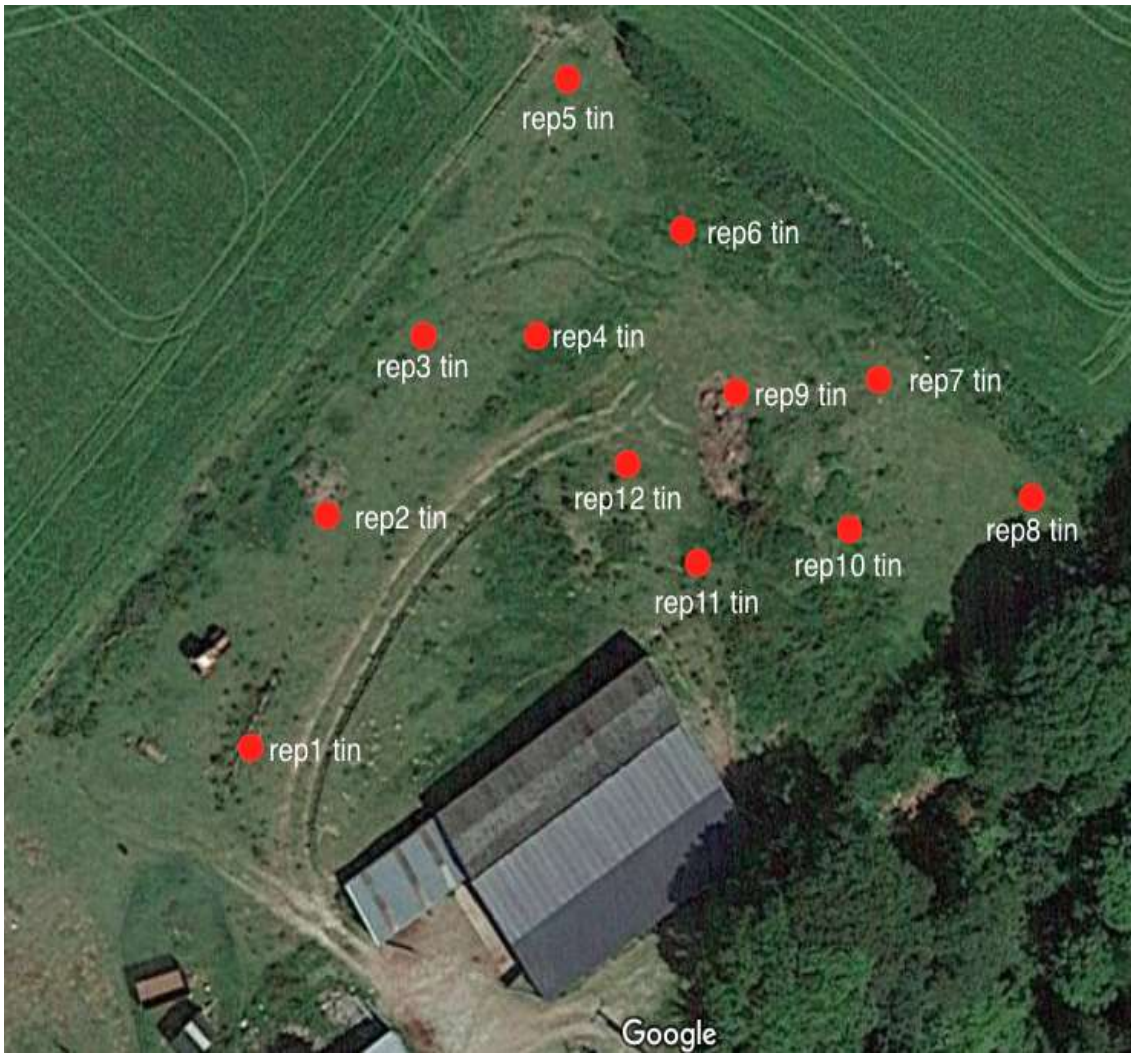
Sutton (2022) Preliminary Ecological Appraisal, Land Adjoining Awel y Mor, St Dogmaels. Wyndrush Wild report.

Froglife (1999). Reptile survey: An introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife advice sheet 10,

Sewell D, Griffiths RA, Beebee TJC, Foster J and Wilkinson JW (2013) Survey Protocols for the British Herpetofauna. ARG / Universities of Kent and Sussex

Appendix A: Details of Artificial Refugia

	Week 1	Week 2	Week 3	Week 4	Week 5	
	21/4/23	28/4/23	2/5/23	5/5/23	7/5/23	
Start Time	10.00	13.00	10.10	14:00	10:15	
Temperature	11	14	15	14	16	
Cloud Cover	20%	40%	0%	10%	30%	
Wind Speed	1	2	0-1	0-1	2	
				After rain		
1 Metal						
2 Metal						
3 Metal			field mouse x2			
4 Metal						
5 Metal					toad	
6 Metal			shrew			
7 Metal						
8 Metal			toad x2			
9 Metal						
10 Metal	voles	voles				
11 Metal	voles					
12 Metal						
Transect sightings						



Map of artificial refuge locations as described in table



Example of ACO

Appendix B: Protected Species Legislation

Species	Relevant Legislation	Level of Protection
Reptiles	<ul style="list-style-type: none"> ○ Partially protected by the Wildlife and Countryside Act 	<p>The WCA (1981) makes it an offence to:</p> <p>intentionally kill or injure these animals</p> <p>sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals</p>